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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 2001P18496US	
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First Named Inventor Bani-Hashemi et al.		Examiner Mantis Mercader, Eleni M.	
Art Unit 3737		Examiner Mantis Mercader, Eleni M.	

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record.
Registration number 39,728

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34. _____

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4-12-06
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below".

☒ Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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By: Raquel C. West

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Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: BANI-HASHEMI et al.

Application Serial No.: 10/004,363

Filing Date: November 1, 2001

For: PATIENT POSITIONING SYSTEM
EMPLOYING SURFACE
PHOTOGRAMMETRY

) Group Art Unit: 3737

) Examiner: Mantis Mercader, Eleni M.

) **ARGUMENTS** in support of
) Pre-Appeal Brief Request For Review

) Attorney Docket No.: 2001P18496US01

Mail Stop AF
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Sir:

Applicants hereby submit arguments in support of the Pre-Appeal Brief Request for Review filed herewith.

Arguments begin on page 2 of this paper.

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Arguments in Support of Pre-Appeal Brief Request for Review

ARGUMENTS

Applicants raise the following arguments as evidence of clear error in the outstanding final rejection of independent Claims 1, 12, 13 and 17. In particular, Applicants submit that the January 12, 2006 Office Action clearly fails to establish a prima facie case under 35 U.S.C. §102.

Specifically, the prior art rejections set forth at pages 4 through 6 of the January 12, 2006 Office Action do not properly address the specific language of the currently-pending independent claims. As noted in M.P.E.P. §2143.03, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." However, using Claim 1 as an example, the prior art rejections do not properly address at least the specific language underlined below:

1. A method comprising:

acquiring first three-dimensional surface data representing at least a portion of a patient's body while the patient is in a first position substantially maintained during a computed tomography scan;

acquiring second data independent from the first data and representing at least one internal three-dimensional portion of the patient's body while the patient is in the first position;

determining a location of an isocenter of the patient based on the second data;

converting the first three-dimensional surface data to a coordinate frame of the patient based on the location of the isocenter;

acquiring third three-dimensional surface data representing at least the portion of the patient's body while the patient is in a second position substantially maintained in preparation for radiation treatment to be delivered by a radiation treatment station;

converting the third three-dimensional surface data to a coordinate frame of the radiation treatment station; and

determining if the first position corresponds to the second position by directly comparing the converted first three-dimensional surface data to the converted third three-dimensional surface data.

The prior art rejections indicate, at page 6, that "converting all the data into a common coordinate frame of reference is inherent otherwise the system is non-functional in that there can

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be no correlation between all the data." Applicants submit that it is improper to simply characterize the specific claim language underlined above as "converting all the data into a common coordinate frame of reference". Moreover, it is improper to summarily dismiss the language based on such a characterization. In a similar manner, the prior art rejections also fail to properly address similar language of Claims 12, 13 and 17.

The Response to Arguments section of the January 12, 2006 Office Action alleges that col. 3, lines 54 through 67, col. 6, lines 39 through 59, and col. 15, line 8 through col. 16, line 42 of U.S. Patent No. 6,405,072 ("Cosman") teach "the therapy system LINAC as well as the images (camera obtained image and scanned) are correlated on the basis of the isocenter point 7 and its 3D location". Moreover, the Response to Arguments section alleges that "converting all the data into a common coordinate frame of reference (which appears to be the essence of the current amendments) is inherent otherwise the system is non-functional in that there can be no correlation between all the data." Again, the foregoing statements simply ignore the specific language of the independent claims, improperly characterize the claimed invention using language that is not present in the claims, and reject the claims based on alleged anticipation of the characterizations.

More specifically, the Office Action appears to allege that since Cosman and the claimed invention both roughly involve "correlating" a LINAC to a patient isocenter and "converting" between coordinate frames, the claimed invention must be obvious in view of Cosman. Such reasoning cannot support a prima facie case under §102 and is believed to reflect clear error in the outstanding Office Action.

Regardless of the foregoing deficiency in the outstanding prior art rejections, Applicants submit that Cosman does not disclose the presently-claimed invention. For example, the cited portions of Cosman mentioned above are discussed at lines 11-20 of page 11 of the Amendment and Response to June 20, 2005 Non-Final Office Action. As discussed therein, none of these portions can be seen to disclose the features of Claims 1 and 17. More specifically, none of these portions can be seen to disclose the comparison of first three-dimensional surface data of a first patient position (substantially maintained during a computed tomography scan) that is converted to a coordinate frame of the patient based on an isocenter location (determined from second data representing at least one internal three-dimensional portion of the patient's body while the patient

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is in the first position) to third three-dimensional surface data of the patient in a second position (substantially maintained in preparation for radiation treatment) that is converted to a coordinate frame of a radiation treatment station.

In contrast to independent Claim 12, Cosman describes the determination of a target location within a patient's body with respect to a device. The determination proceeds by locating reference points on the surface of the patient and correlating the located reference points to previously-acquired scan data which indicates the position of the target with respect to the reference points.

Consequently, Cosman is not seen to disclose, as claimed in Claim 12, acquisition of computed tomography data of a patient while the patient is in a first position, determination of a location of an isocenter of the patient based on the computed tomography data, conversion of first three-dimensional surface data of the patient in the first position to a coordinate frame of the patient based on the isocenter location, conversion of second three-dimensional surface data of the patient in a second position at a radiation treatment station to a coordinate frame of the radiation treatment station, and determination of whether the first position corresponds to the second position by directly comparing the converted first three-dimensional surface data to the converted second three-dimensional surface data.

The Office Action fails to allege, as required by M.P.E.P. §2131, that Cosman discloses the specific elements of independent Claim 13. Nevertheless, Applicants submit that Cosman does not disclose any devices to acquire computed tomography data of a patient while the patient is in a first position, to determine a location of an isocenter of the patient based on the computed tomography data, to convert first three-dimensional surface data of the patient in the first position to a coordinate frame of the patient based on the isocenter location, to convert second three-dimensional surface data of the patient in a second position at a radiation treatment station to a coordinate frame of the radiation treatment station, and to determine whether the first position corresponds to the second position by directly comparing the converted first three-dimensional surface data to the converted second three-dimensional surface data.

Withdrawal of the outstanding final rejection under 35 U.S.C. §102 is therefore respectfully requested.

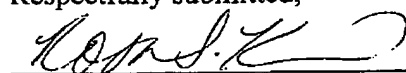
CONCLUSION

For at least the reasons given above, it is submitted that the final rejection of the application is improper and should be withdrawn. If any questions arise regarding the application or any of the cited references, or if the panel has suggestions for expediting allowance of the application, the panel is kindly invited to contact the undersigned via telephone at (650) 694-5810.

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Respectfully submitted,



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